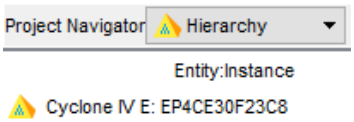
Guideliness for Programming Gecko4Education EPFL Edition

1. Open the Quartus project: the file with the extension **qpf**. Before proceeding, check that the Hierarchy window in Quartus Project Navigator shows that your project is configured for the FPGA used on the board: Cyclone IV E (EP4CE30F23C8).



2. Check that your block diagram/schematic file (the file with the extension **bdf**) is among the project files listed in Project Navigator:

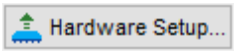
3. Check that all the input and output signals in the block diagram/schematic are connected to the correct pins of the FPGA (buttons, switches, LEDs, clocks, etc.). More information related to the FPGA pins on your board can be found on Gecko4Education EPFL-Edition wiki: **link**.
4. Take the Gecko4Education and plug the accompanying cable in the board on one side and in one of the USB ports of your PC (choose a port that is not a charging port and, preferably, a USB2 port).
5. This step is performed only once, before programming the board for the first time.

   Install Altera drivers: USB-Blaster, not USB-Blaster II.

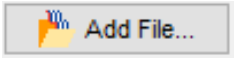
   - Instructions for Windows 7 (the procedure is very similar for Windows 10): link to Altera.
   - Instructions for Linux: link to Altera.
6. In Quartus, run the **synthesis, place and route and bit-file generation** by clicking the button below.

   Proceed to the next step only if there are no errors in this phase.
7. Open the programmer window by clicking the button below.

8. Once programmer window is open, click on **Hardware Setup** and select **USB-Blaster**.



9. Click on **Add File** and look for the **output_files** folder. Open it. Select the file with the same name as your project but with the extension **sof**. You will use this file to program the FPGA fabric.



10. Click on the **Start** button.

11. Wait until programming is done.